4. (Amended) A method according to claim 3, wherein the model in question is a static one and produces a causticity difference.

5. (Amended) A method according to claim 4, wherein a quotient is calculated by dividing an average of the differences in white liquor and lime milk causticities by a causticity difference provided by the model on the basis of a production average, and the causticity difference produced by the model is multiplied by the quotient.

8. (Amended) A method according to claim 3, wherein the lime to green liquor ratio is controlled by adjusting the lime to green liquor ratio using the temperature difference control in such a way that when the measured temperature deviates from the temperature target, the lime to green liquor ratio target is changed in the opposite direction.

9. (Amended) A method according to claim 8, wherein in connection with a production change, the lime to green liquor ratio is changed on the basis of a static model describing the changing of the lime to green liquor ratio during a production change.

10. (Amended) A method according to claim 9, wherein the static model describing the changing of the lime to green liquor ratio during a production change substantially conforms with a production curve.

12. (Amended) A method according to claim 11, wherein the offset is determined on the basis of the green liquor TTA and a momentary density of the green liquor by applying the model including the coefficient.

Please cancel Claims 17 through 25 without prejudice or disclaimer.

Please add the following new claim:

26. A method for controlling a slaker within a causticizing process which comprises

(a) measuring the total titratable alkali within a green liquor inlet stream;

(b) determining the density of said green liquor inlet stream based on said total titratable alkali; and

(c) adjusting the density of said green liquor inlet stream by introducing an effective amount of a weak white liquor stream into said green liquor inlet stream,

wherein the density of the green liquor inlet stream is determined using the following equation:

$$D = (TTA+os)/kk,$$

wherein: D is the green liquor density;
TTA is the total titratable alkali of the green liquor;
os is an offset, which is determined using a model having as parameters the green liquor TTA and momentary density of green liquor; and
kk is a constant angular coefficient.